
**Commonwealth of Virginia
State Implementation Plan to Support
Reasonable Available Control
Technology
In the Northern Virginia 8-hour Ozone
Nonattainment Area**

Proposal

Table of Contents

1.	Introduction.....	1
2.	Control Technology Guideline RACT	2
2.1.	Regulations supporting CTG RACTs	3
2.2.	Negative declarations for CTG categories where no applicable facilities are located in NoVA.....	15
3.	Source Specific RACT	17
3.1.	NO _x SIP Call Facilities.....	20
3.2.	Internal Combustion Engines	20
3.3.	Municipal Waste Combustors - Sections 129 & 111(d)	20
4.	Area Source VOC Regulations	21
5.	Small NO _x Source Model Rules.....	21
6.	Consideration of information or questions received via public comment.....	22
7.	Reference Listing	23

1. Introduction

The purpose of this document is to demonstrate that all requirements for Reasonably Available Control Technology (RACT) determinations and implementation have been met by the Commonwealth of Virginia. This process is necessary as part of the 8-hour ozone nonattainment designation and attainment planning process in the Northern Virginia (NoVA) area, which has been designated as a moderate nonattainment area for the 8-hour ozone standard.

NoVA consists of the following counties and cities:

Arlington County	City of Alexandria
Fairfax County	City of Fairfax
Loudoun County	City of Falls Church
Prince William County	City of Manassas
	City of Manassas Park

These jurisdictions, along with Stafford County, Virginia; Washington, D.C.; and portions of southern Maryland, were originally classified in 1990 as the Metropolitan Washington serious 1-hour ozone nonattainment area. As part of the planning process, section 182(b)(2) of the Clean Air Act Amendments of 1990 (CAAA) required moderate or worse ozone nonattainment areas to implement RACT on all sources and source categories covered by a Control Technology Guideline (CTG) issued by EPA. Point sources with a potential to emit of 50 tons per year or more of volatile organic compounds (VOCs) or 100 tons per year or more of nitrogen oxides (NO_x) that were not covered by a control techniques guideline (CTG) were also required to implement non-CTG RACT.

Since the area failed to meet the attainment date of November 15, 1999, the Metropolitan Washington area was reclassified as a severe nonattainment area (68 FR 3410, January 24, 2003) for the 1-hour ozone standard. Due to this reclassification, the Commonwealth subsequently performed RACT evaluations on point sources with a potential to emit of 25 tons per year for either VOC or NO_x.

On July 18, 1997, the Environmental Protection Agency (EPA) promulgated the new 8-hour National Ambient Air Quality Standard for ozone. On April 30, 2004 (69 FR 23858), the Metropolitan Washington area, with the exception of Stafford County, was designated nonattainment for the 8-hour ozone standard and was classified a moderate nonattainment area.

Due to the designation and classification based on the 8-hour ozone standard, this SIP revision is being submitted to demonstrate that all requirements for RACT are met, either through certification that previously required RACT controls represent RACT for 8-hour implementation purposes, through new RACT determinations, or by demonstrating that no facilities exist in the Northern Virginia area that are applicable to control technology guideline categories.

The guidance documents used as a basis for this SIP revision are:

- Memorandum dated May 18, 2006 entitled “SUBJECT: RACT Qs & As – Reasonably Available Control Technology (RACT): Questions and Answers” from Mr. William T. Harnett, Director, Air Quality Policy Division of EPA
- 70 FR 71612, November 2, 2005, “Final Rule to Implement the 8-Hour Ozone National Ambient Air Quality Standard – Phase 2”

Information and guidance received during telephone conversations with the EPA Region III staff members were also used in the development of this submittal.

2. Control Technology Guideline RACT

Section 182 of the Clean Air Act sets forth two RACT requirements for ozone nonattainment areas. The first requirement, contained in Section 182(a)(2)(A) of the Act, requires the correction of RACT rules for which EPA identified deficiencies before the Act was amended in 1990. The second requirement, contained in Section 182(b)(2), applies to moderate and above nonattainment areas and requires the implementation of RACT for VOC sources covered by a CTG and all other major stationary sources of VOCs.

EPA issued three sets of CTG documents prior to 1990, establishing a “presumptive norm” for RACT for various categories of VOC sources. These three sets of CTGs were:

- Group I – issued before January 1978 (15 CTGs);
- Group II – issued in 1978 (9 CTGs); and
- Group III – issued in the early 1980s (5 CTGs).

EPA also issued four CTGs after 1990. For each CTG category, the Commonwealth of Virginia must demonstrate that the regulations covering each category are at least as stringent as those in the CTG and that no other EPA documentation exists suggesting that these technologies are no longer RACT; or that no facility exists within the covered area that has the CTG as an applicable requirement.

Note that EPA guidance requires that states verify that ACTs have been considered in the RACT program development process. Although ACTs are not regulatory documents and have no legal effect on state regulations, this document includes ACTs in the review of applicable RACT requirements.

2.1. Regulations supporting CTG RACTs

The following table shows each CTG document that has a corresponding state regulation enforcing each technology determination. The table also notes the applicable approval date for each document, showing that the submittal to EPA met all requirements. Based on this review, the Commonwealth of Virginia certifies that these regulations meet RACT for the 8-hour ozone standard.

As shown in the table, these regulations were adopted and modified as needed to either meet a general Clean Air Act requirement, or to meet specific attainment needs for the Northern Virginia area. In addition to rule-by-rule revisions, the following revisions, needed to meet the general requirements of Section 182, were made:

- Regulation Revision P: Section 182(a)(2)(A) requires all ozone nonattainment areas to submit SIP revisions that correct and update existing regulatory program requirements for CTG RACT (also known as the “RACT fix-up”). These corrections, which are consistent with “The Blue Book” (Issues Relating to VOC regulation Cutpoints, Deficiencies, and Deviations – Clarification of Appendix D of November 24, 1987 Federal Register) were submitted to EPA May 10, 1991, and received final EPA approval March 31, 1994.
- Regulation Revision BB: Section 182(b)(2) requires that moderate ozone nonattainment areas implement RACT for each category of VOC sources covered by a CTG document issued between the date of the 1990 Amendments and the date of attainment, for VOC sources covered by any CTG issued before the 1990 Amendments, and for all other major stationary sources of VOCs. Article 4 of 9 VAC 5 Chapter 40, which contains non-CTG RACT requirements, was revised in order to require RACT for all sources emitting 50 tons per year or greater of VOC in the Northern Virginia emissions control area. Additionally, this article established a NO_x emission standard for non-CTG sources to require RACT for all sources emitting 100 tons per year or greater of NO_x in the Northern Virginia emissions control area. This revision was submitted to EPA November 6, 1992, and final EPA approval was issued March 12, 1997. Amendments were submitted April 22, 1996,

with final EPA approval March 12, 1997; and further amendments were submitted February 4, 2004 with final EPA approval August 9, 2004.

In addition to these general rulemakings, Virginia has revised its regulations and updated the SIP as needed to meet specific source category requirements, and to meet specific attainment area needs identified in the attainment planning process. Originally, Virginia's approach was to adopt all CTGs as state regulations whether there were any affected sources in the state or not. As implementation of the 1990 Amendments continued, however, it was recognized that Virginia's SIP needs would be best met by undergoing the regulatory development process only when necessary--that is, when there was a population of affected sources sufficient to justify a complete rulemaking. If there were few sources affected by a federal rule, Virginia would then issue permits to the individual sources which met the federal requirements and which were submitted for inclusion in the SIP. Therefore, if a CTG or ACT is listed for which there is no corresponding Virginia requirement--either a regulation or a permit--then that CTG or ACT had no applicability in the state and thus would have generated no emissions reductions in the nonattainment area.

As another general note, two CTG categories are no longer relevant to the reduction of ozone precursors. First, "Control of Volatile Organic Emissions from Perchloroethylene Dry Cleaning Systems," December 1978 EPA-450/2-78-050 is no longer relevant due to the fact that perchloroethylene is no longer considered to be a reactive VOC. This pollutant is now only regulated as a hazardous air pollutant under Section 112 of the CAAA. Second, Reduction of Volatile Organic Compound Emissions from Application of Traffic Markings, August 1988 EPA-450/3-88-007 is no longer relevant since the AIM national rule issued in 1998 includes limits for traffic coatings and superseded the ACT.

Table 2.1-1 CTG Documents and Virginia Regulations

CTG Title & Doc #	State Regulation		Original VA Adoption Date	Original VA Effective Date	Submittal to EPA	Original Proposal Date	Final Approval Date	Effective Date of Most Recent Change	Final Approval Date of Most Recent Change
Design Criteria for Stage I Vapor Control Systems -Gasoline Service Stations, November 1975 (no corresponding document number)	9 VAC 5 Chapter 40 Part II Article 37 <i>Emission Standards for Petroleum Liquid Storage and Transfer Operations (Rule 4-37)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-5220	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	3/24/04	4/27/05 70 FR 21625
		Control Technology Guidelines 9 VAC 5-40-5230	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
Control of Volatile Organic Emissions from Existing Stationary Sources , Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks, May 1977 EPA-450/2-77-008	9 VAC 5 Chapter 40 Part II Article 28 <i>Emission Standards for Automobile and Light Duty Truck Coating Application Systems (Rule 4-28)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-3880	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44565	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-3890	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44565	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
	9 VAC 5 Chapter 40 Part II Article 29 <i>Emission Standards for Can Coating Application Systems (Rule 4-29)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-4030	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44565	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-4040	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44565	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315

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Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks, May 1977 EPA-450/2-77-008	9 VAC 5 Chapter 40 Part II Article 30 <i>Emission Standards for Metal Coil Coating Application Systems (Rule 4-30)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-4180	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44565	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-4190	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44565	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
	9 VAC 5 Chapter 40 Part II Article 31 <i>Emission Standards for Paper and Fabric Coating Application Systems (Rule 4-31)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-4330	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44565	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-4340	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44565	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
	9 VAC 5 Chapter 40 Part II Article 32 <i>Emission Standards for Vinyl Coating Application Systems (Rule 4-32)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-4480	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-4490	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315

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CTG Title & Doc #	State Regulation		Original VA Adoption Date	Original VA Effective Date	Submittal to EPA	Original Proposal Date	Final Approval Date	Effective Date of Most Recent Change	Final Approval Date of Most Recent Change
Control of Volatile Organic Emissions from Solvent Metal Cleaning, November 1977 EPA-450/2-77-022	9 VAC 5 Chapter 40 Part II Article 24 <i>Emission Standards for Solvent Metal Cleaning Operations Using Non-Halogenated Solvents (Rule 4-24)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-3280	12/1/78	1/30/79	1/11/79	7/30/79 44 FR44564	8/19/80 45FR55180	4/1/97	11/3/99 64FR59635
		Control Technology Guidelines 9 VAC 5-40-3290	12/1/78	1/30/79	1/11/79	7/30/79 44FR44564	8/19/80 45FR55180	4/1/97	11/3/99 64FR59685
	9 VAC 5 Chapter 40 Part II Article 47 <i>Emission Standards for Solvent Metal Cleaning Operations in the Northern Virginia Volatile Organic Compound Emissions Control Area (Rule 4-47)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-6840	11/5/03	3/24/04	2/23/04	6/9/04 69 FR 32277	6/9/04 69 FR 32277	3/24/04	6/9/04 69 FR 32277
Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds, October 1977 EPA-450/2-77-025	9 VAC 5 Chapter 40 Part II Article 11 <i>Emission Standards for Petroleum Refinery Operations (Rule 4-11)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-1390	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-1400	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315

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CTG Title & Doc #	State Regulation		Original VA Adoption Date	Original VA Effective Date	Submittal to EPA	Original Proposal Date	Final Approval Date	Effective Date of Most Recent Change	Final Approval Date of Most Recent Change
Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals, December 1977 EPA-450/2-77-026	9 VAC 5 Chapter 40 Part II Article 37 <i>Emission Standards for Petroleum Liquid Storage and Transfer Operations (Rule 4-37)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-5220	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	3/24/04	4/27/05 70 FR 21625
		Control Technology Guidelines 9 VAC 5-40-5230	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
Control of Volatile Organic Emissions from Existing Stationary Sources, Volume III: Surface Coating of Metal Furniture, December 1977 EPA-450/2-77-032	9 VAC 5 Chapter 40 Part II Article 33 <i>Emission Standards for Metal Furniture Coating Application Systems (Rule 4-33)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-4630	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-4640	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
Control of Volatile Organic Emissions from Existing Stationary Sources, Volume IV: Surface Coating for Insulation of Magnet Wire, December 1977 EPA-450/2-77-033	9 VAC 5 Chapter 40 Part II Article 27 <i>Emission Standards for Magnet Wire Coating Application Systems (Rule 4-27)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-3730	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-3740	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315

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CTG Title & Doc #	State Regulation		Original VA Adoption Date	Original VA Effective Date	Submittal to EPA	Original Proposal Date	Final Approval Date	Effective Date of Most Recent Change	Final Approval Date of Most Recent Change
Control of Volatile Organic Emissions from Existing Stationary Sources, Volume V: Surface Coating of Large Appliances, December 1977 EPA-450/2-77-034	9 VAC 5 Chapter 40 Part II Article 26 <i>Emission Standards for Large Appliance Coating Application Systems (Rule 4-26)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-3580	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-3590	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
Control of Volatile Organic Emissions from Bulk Gasoline Plants, December 1977 EPA-450/2-77-035	9 VAC 5 Chapter 40 Part II Article 37 <i>Emission Standards for Petroleum Liquid Storage and Transfer Operations (Rule 4-37)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-5220	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	3/24/04	4/27/05 70 FR 21625
		Control Technology Guidelines 9 VAC 5-40-5230	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed Roof Tanks, December 1977 EPA-450/2-77-036	9 VAC 5 Chapter 40 Part II Article 37 <i>Emission Standards for Petroleum Liquid Storage and Transfer Operations (Rule 4-37)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-5220	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	3/24/04	4/27/05 70 FR 21625
		Control Technology Guidelines 9 VAC 5-40-5230	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315

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Control of Volatile Organic Compounds from Use of Cutback Asphalt, December 1977 EPA-450/2-77-037	9 VAC 5 Chapter 40 Part II Article 39 <i>Emission Standards for Asphalt Paving Operations (Rule 4-39)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-5510	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	3/24/04	4/27/05 70 FR 21625
Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VI: Surface Coating of Miscellaneous Metal Parts and Products, June 1978 EPA-450/2-78-015	9 VAC 5 Chapter 40 Part II Article 34 <i>Emission Standards for Miscellaneous Metal Part and Products Coating Application Systems (Rule 4-34)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-4780	10/1/79	11/30/79	12/17/79	4/7/81 46 FR 20692	5/6/82 47 FR 19524	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-4790	10/1/79	11/30/79	12/17/79	4/7/81 46 FR 20692	5/6/82 47 FR 19524	4/17/95	4/21/00 65 FR 21315
Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VII: Factory Surface Coating of Flat Wood Paneling, June 1978 EPA-450/2-78-032	9 VAC 5 Chapter 40 Part II Article 35 <i>Emission Standards for Flatwood Paneling Coating Application Systems (Rule 4-35)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-4930	10/1/79	11/30/79	12/17/79	4/7/81 46 FR 20692	5/6/82 47 FR 19524	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-4940	10/1/79	11/30/79	12/17/79	4/7/81 46 FR 20692	5/6/82 47 FR 19524	4/17/95	4/21/00 65 FR 21315

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Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products, December 1978 EPA-450/2-78-029	9 VAC 5 Chapter 40 Part II Article 5 <i>Emission Standards for Synthesized Pharmaceutical Manufacturing Operations (Rule 4-5)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-450	10/1/79	11/30/79	12/17/79 Rev 11 #34	4/7/81 46 FR 20292	5/6/82 47 FR 19523	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-460	10/1/79	11/30/79	12/17/79 Rev 11 #34	4/7/81 46 FR 20292	5/6/82 47 FR 19523	4/17/95	4/21/00 65 FR 21315
Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires, December 1978 EPA-450/2-78-030	9 VAC 5 Chapter 40 Part II Article 6 <i>Emission Standards for Rubber Tire Manufacturing Operations (Rule 4-6)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-600	10/1/79	11/30/79	12/17/79	4/7/81 46 FR 20292	5/6/82 47 FR 19523	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-610	10/1/79	11/30/79	12/17/79	4/7/81 46 FR 20292	5/6/82 47 FR 19523	4/17/95	4/21/00 65 FR 21315
Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VII: Graphic Arts – Rotogravure and Flexography, December 1978 EPA-450/2-78-033	9 VAC 5 Chapter 40 Part II Article 36 <i>Emission Standards for Flexographic, Packaging Rotogravure, and Publication Rotogravure Printing Lines (Rule 4-36)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-5080	10/1/79	11/30/79	12/17/79	4/7/81 46 FR 20292	5/6/82 47 FR 19523	4/1/96	3/12/97 62 FR 11334

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CTG Title & Doc #	State Regulation		Original VA Adoption Date	Original VA Effective Date	Submittal to EPA	Original Proposal Date	Final Approval Date	Effective Date of Most Recent Change	Final Approval Date of Most Recent Change
Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks, December 1978 EPA-450/2-78-047	9 VAC 5 Chapter 40 Part II Article 37 <i>Emission Standards for Petroleum Liquid Storage and Transfer Operations (Rule 4-37)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-5220	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	3/24/04	4/27/05 70 FR 21625
		Control Technology Guidelines 9 VAC 5-40-5230	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems, December 1978 EPA-450/2-78-051	9 VAC 5 Chapter 40 Part II Article 37 <i>Emission Standards for Petroleum Liquid Storage and Transfer Operations (Rule 4-37)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-5220	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	3/24/04	4/27/05 70 FR 21625
		Control Technology Guidelines 9 VAC 5-40-5230	12/1/78	1/30/79	1/11/79	7/30/79 44 FR 44564	8/19/80 45 FR 55180	4/17/95	4/21/00 65 FR 21315
ACT Document – Halogenated Solvent Cleaners August 1989 EPA 450/3-89-030	9 VAC 5-Chapter 40 Part II Article 47 <i>Emission Standards for Solvent Metal Cleaning Operations in the Northern Virginia Volatile Organic Compound Emissions Control Area (Rule 4-47)</i>	Standard for volatile organic compounds. 9 VAC 5-40-6840.	11/5/03	3/24/04	2/23/04	6/9/04 69 FR 32277	6/9/04 69 FR 32277	3/24/04	6/9/04 69 FR 32277

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CTG Title & Doc #	State Regulation		Original VA Adoption Date	Original VA Effective Date	Submittal to EPA	Original Proposal Date	Final Approval Date	Effective Date of Most Recent Change	Final Approval Date of Most Recent Change
ACT: Volatile Organic Liquid Storage In Floating and Fix Roof Tanks, January 1994 EPA 453/R-94-001	9 VAC 5 Chapter 40 Part II Article 25 <i>Emission Standards for Volatile Organic Compound Transfer and Storage Operations</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-3430	12/1/78	1/30/79	1/11/79	4/7/81 46 FR 20692	5/6/82 47 FR 19523	4/17/95	4/21/00 65 FR 21315
		Control Technology Guidelines 9 VAC 5-40-3440	10/1/79	11/30/79	12/17/79	4/7/81 46 FR 20692	5/6/82 47 FR 19523	4/17/95	4/21/00 65 FR 21315
ACT Document – Industrial Cleaning Solvents, February 1994 EPA 453/R-94-015	9 VAC 5 Chapter 40 Part II Article 47 <i>Emission Standards for Solvent Metal Cleaning Operations in the Northern Virginia Volatile Organic Compound Emissions Control Area (Rule 4-47)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-6840	11/5/03	3/24/04	2/23/04	6/9/04 69 FR 32277	6/9/04 69 FR 32277	3/24/04	6/9/04 69 FR 32277
ACT Automobile Body refinishing April 1994 EPA 453/R-94-031, national rule for auto body refinishing was issued in 1998	9 VAC 5 Chapter 40 Part II Article 48 <i>Emission Standards for Mobile Equipment Repair and Refinishing Operations in the Northern Virginia Volatile Organic Compound Emission Control Area (Rule 4-48)</i>	Standards for Volatile Organic Compounds 9 VAC 5-40-6990.	11/5/03	3/24/04	2/23/04	6/24/04 69 FR 35253	6/24/04 69 FR 35253	3/24/04	6/24/04 69 FR 35253

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CTG Title & Doc #	State Regulation		Original VA Adoption Date	Original VA Effective Date	Submittal to EPA	Original Proposal Date	Final Approval Date	Effective Date of Most Recent Change	Final Approval Date of Most Recent Change
ACT Offset Lithography EPA 453/R-94-054 June 1994	9 VAC 5 Chapter 40 Part II Article 53 <i>Emission Standards for Lithographic Printing Processes (Rule 4-53)</i>	Standard for Volatile Organic Compounds. 9 VAC 5-40-7820	12/19/95	4/1/96	4/22/96	3/12/97 62 FR 11395	3/12/97 62 FR 11334	In process (D04 approved 6/21/06)	In process (D04 approved 6/21/06)
ACT NOx Emissions from Stationary Combustion Turbines EPA-453/R-93-007 January 1993	9 VAC 5 Chapter 40 Part II Article 4 <i>Emission Standards for General Processes (Rule 4-4)</i>	Reasonably available control technology guidelines for stationary sources of nitrogen oxides. 9 VAC 5-40-311	10/30/92	1/1/93	---	---	---	7/1/97	4/28/99 64 FR 22792
ACT NOx Emissions from Process Heaters EPA 453/R-93-034 September 1993	9 VAC 5 Chapter 40 Part II Article 4 <i>Emission Standards for General Processes (Rule 4-4)</i>	Reasonably available control technology guidelines for stationary sources of nitrogen oxides. 9 VAC 5-40-311	10/30/92	1/1/93	---	---	---	7/1/97	4/28/99 64 FR 22792
NOx Emissions from Industrial, Commercial & Institutional Boilers EPA 453/R-94-022 March 1994	9 VAC 5 Chapter 40 Part II Article 4 <i>Emission Standards for General Processes (Rule 4-4)</i>	Reasonably available control technology guidelines for stationary sources of nitrogen oxides. 9 VAC 5-40-311	10/30/92	1/1/93	---	---	---	7/1/97	4/28/99 64 FR 22792

2.2. **Negative declarations for CTG categories where no applicable facilities are located in NoVA**

For the control documents listed in Table 2.2-1, no regulations were adopted in the Commonwealth of Virginia due to the fact that no facilities were in existence in Northern Virginia that met applicability requirements for these documents.

This determination was made after the thorough review of the existing registration database for the counties comprising the 8-hour ozone nonattainment area in Northern Virginia. Facilities must register in this database all units with any applicable regulation in the Virginia State Air Pollution Control Board's Regulations for the Control and Abatement of Air Pollution. Also required to be registered are any facilities with the potential to emit of at least 25 tons per year of VOC or 40 tons per year of NO_x and any facility making a change with a potential to emit of at least 10 tons per year of VOC or NO_x. Additionally, for many VOC emitting facilities, facilities are required to register and report emissions at much smaller emission rates such as miscellaneous metal parts facilities, which require registration when a facility emits 2.7 tons per year or 15 pounds per day. Since these levels are well below the 50 tons per year VOC and 100 tons per year NO_x thresholds, the registration database provides a sound basis for stating that these facilities are not represented in the Northern Virginia 8-hour ozone nonattainment area.

Table 2.2-1 Documents for which no Applicable Facilities Exist in NoVA
Control of Volatile Organic Compound Leaks from Petroleum Refinery Equipment, June 1978 EPA-450/2-78-036
Control of Volatile Organic Compound Emissions from Large Petroleum Dry Cleaners, September 1982 EPA-450/3-82-009
Control of Volatile Organic Compound Emissions from Manufacture of High Density Polyethylene, Polypropylene, and Polystyrene Resins, November 1983 EPA-450/3-83-008
Control of Volatile Organic Compound Equipment Leaks from Natural Gas/Gasoline Processing Plants December 1983 EPA-450/2-83-007
Control of Volatile Organic Compound Fugitive Emissions from Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment March 1984 EPA-450/3-83-006
Control of Volatile Organic Compound Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry, December 1984 EPA-450/3-84-015
SOCMI Distillation and Reactor Processes CTG, August 1993 EPA 450/4-91-031

Table 2.2-1 Documents for which no Applicable Facilities Exist in NoVA
Wood Furniture (CTG-MACT) – draft MACT out 5-94; final CTG, April 1996 CTG: EPA-453/R-96-007 61 FR 25223 5/20/1996 61 FR 50823 9/27/1996
Shipbuilding/repair ACT (April 1994) and CTG August 27, 1996 EPA 453/R-94-032 (ACT) 61 FR 44050 (CTG)
Aerospace (CTG & MACT) December 1997 EPA 453/R-97-004 CTG
Control Techniques for Organic Emissions from Plywood Veneer Dryers, May 1983, ACT EPA 450/3-83-012
Ethylene Oxide Sterilization ACT, March 1989 EPA 450/3-89-007
ACT Document – Organic Waste Process Vents, December 1990 EPA 450/3-91-007
ACT Polystyrene Foam Manufacturing, 1990 EPA 450/3-90-020
Bakery Ovens ACT December 1992 EPA 453/R-92-017
ACT Control Techniques for Volatile Organic Compound Emissions from Stationary Sources, December, 1992 EPA 453/R-92-018
ACT Industrial Wastewater September 1992 & April 1994 EPA 453/D-93-056
Control of VOC Emissions from the Application of Agricultural Pesticides, March 1993 EPA 450/R-92-011
Control of Volatile Organic Compound Emissions from Batch Processes ACT February 1994 EPA 453/R-93-017
ACT Business Machine Plastic Parts coating/Automobile Plastic Parts Coating, February 1994 EPA 453/R-94-017
ACT NOx Emissions from Nitric and Adipic Acid Manufacturing Plants EPA453/3-91-026 December 1991
NOx Emissions from Cement Manufacturing EPA 453/R-94-004 March 1994 Updated September 2000
NOx Emissions from Industrial, Commercial & Institutional Boilers EPA 453/R-94-022 March 1994
NOx Emissions from Glass Manufacturing EPA 453/R-94-037 June 1994
NOx Emissions from Iron and Steel EPA 453/R-94-065 September 1994

3. Source Specific RACT

The Commonwealth of Virginia must recertify the previous source specific RACT determinations made under the 1-hour ozone nonattainment area's attainment plan as meeting RACT for the 8-hour standard. This process must be done for all facilities that do not have an applicable CTG and whose potential to emit is at least 50 tons per year of VOC or at least 100 tons per year of NO_x. This recertification process does not apply to facilities with no applicable CTG and with the potential to emit between 25 tons per year and 50 tons per year of VOC. This recertification process also does not apply to facilities with no applicable CTG or ACT and with the potential to emit between 25 tons per year and 100 tons per year of NO_x. These facilities were considered to be major for RACT purposes under the 1-hour ozone nonattainment area's classification of severe; however, they are not considered to be major for RACT purposes under the 8-hour ozone nonattainment area's classification of moderate. Therefore, no RACT determination under the 8-hour ozone standard is required for these facilities.

The following table lists the facilities in the NoVA area that have implemented source specific RACT. The table also provides a brief description of the RACT determination. Consultation with the referenced non-CTG RACT document would provide more detailed information on the technology determination.

Table 3-1 Source Specific RACT Determinations					
Facility Name	County/Plant ID Reg #	Pollutant	RACT Description	State Effective Date	EPA Approval Date
Pentagon Utilities Plant	51-013-0188 70030	NO _x	Replacement of boilers with units equipped with FGR and LNB. Limitations of: 0.065 lbs NO _x /mmBtu (nat gas) 0.08 lbs NO _x /mmBtu (#2 oil)	5/17/00	01/02/01 66 FR 8
Washington Gas Light Company	51-059-0056 70151	NO _x	6 Caterpillar engines (930 hp each): NSCR & Air/fuel controllers 2 g NO _x /bhp-hr 3 Boilers (10.46 mmBtu/hr each): natural gas fired – good operation and maintenance	4/3/98	01/02/01 66 FR 8
Dominion Virginia Power-Possum Point Power Station	51-153-0002 70225	VOC	Good combustion practices	6/12/95	01/02/01 66 FR 8
		NO _x	For NO _x RACT see section 3.1.	n/a	n/a
Mirant-Potomac River Power Plant	51-510-0003 70228	VOC	Combustion optimization by a digital control system	5/8/00	01/02/01 66 FR 8
		NO _x	For NO _x RACT see section 3.1.	n/a	n/a
United States Marine Base – Quantico	51-153-0010 70267	NO _x	#1 & #2 Boilers: Fuel switch to #2 oil; 0.25 lbs NO _x /mmBtu #3 Boiler: Replaced with new boiler using nat gas & #2 oil; Equipped with LNB; 0.09 lbs NO _x /mmBtu (gas) 0.10 lbs NO _x /mmBtu (oil) #4 and #5 Boilers: Replaced with new boilers using nat gas & #2 oil; Equipped with LNB & FGR 0.1lbs NO _x /mmBtu #6, T1, & T2 Boilers: Permanently removed Camp Barrat Boilers 1 & 2: Equipped with new nozzles; 10% reduction in NO _x Small Boilers: Good maintenance and operating practices	5/24/00	01/02/01 66 FR 8
U.S. Army – Fort Belvoir	51-059-0018 70550	NO _x	Evaluation & adjustment of the combustion process at least semi-annually to minimize the formation of NO _x .	5/16/00	01/02/01 66 FR 8
Noman M. Cole, Jr. Pollution Control Plant	51-059-0281 70714	NO _x	Proper operation and maintenance of #3 and #4 incinerators	12/23/99	01/02/01 66 FR 8
Covanta – Alexandria	51-510-0139 71895	NO _x	NO _x emission standard of 205 ppmvd, 7% O ₂ and implementation of 40 CFR Part 60 Subpart Cb	7/31/98	01/02/01 66 FR 8
Covanta – Fairfax	51-059-0560 71920	NO _x	NO _x emission standard of 205 ppmvd, 7% O ₂ and implementation of 40 CFR Part 60 Subpart Cb	4/3/98	01/02/01 66 FR 8
Transco – Station 185	51-065-0016 71958	NO _x	Low Emission Combustion (LEC) modifications, High Pressure Fuel Injection (HPFI), and Engine Parametric Adjustments	9/5/96	01/02/01 66 FR 8

Table 3-1 Source Specific RACT Determinations					
Facility Name	County/Plant ID Reg #	Pollutant	RACT Description	State Effective Date	EPA Approval Date
Michigan Cogeneration Systems, Inc.	51-059-0575 71961	NO _x	Lean air/fuel mix & controlling air and fuel T 0.0044 lbs NO _x /kilowatt-hr	5/10/00	01/02/01 66 FR 8
		VOC	0.0015 lbs VOC/kilowatt-hr		
CNG Service Company	51-107-0101 71978	NO _x	Lean burn design of engines; 1.5 g NO _x /bhp-hr Gen: 2 grams NO _x /bhp-hr	5/22/00	01/02/01 66 FR 8
		VOC	Lean burn design of engines, 0.46 g VOC/bhp-hr	5/22/00	01/02/01 66 FR 8
Columbia Gas Transmission Corporation	51-107-0125 72265	NO _x	Saturn engines: 76 ppmvd NO _x at 15% O ₂ Centaur engine: 142 ppmvd NO _x at 15% O ₂	5/23/00	01/02/01 66 FR 8
Prince William County Department of Public Works	51-153-0139 72340	NO _x	Engines: lean burn engines 1.2 g NO _x /bhp-hr] Flare: retention time and T 0.06 lbs NO _x /mmBtu	4/16/04	9/9/04 69 FR 54581

Other than the Noman M. Cole Pollution Control Plant, the Commonwealth of Virginia believes recertification of the above listed source specific RACT determinations is appropriate since no other information is available indicating that the current RACT should be reevaluated.

70714: Noman M. Cole Pollution Control Plant

This facility's previous RACT determination stated that proper operation and good combustion practice were RACT for NO_x control. According to the Phase 2 Final Implementation Rule, facilities where the previous determination is "no additional controls required" must undergo a new RACT analysis. However, a review of current information in the RACT/BACT/LAER Clearinghouse (RBLC) shows a more recent RACT determination for a similar facility in Georgia, the Utoy Creek Water Reclamation Center. This information may be found in the RBLC record identification number of GA-0123. The Noman M. Cole Pollution Control Plant consists of six multiple hearth incinerators with rated capacities between 38 tons per day and 92 tons per day of sludge. The Utoy Creek Water Reclamation Center, whose RACT determination was made in 2005, consists of two multiple hearth incinerators, with rated capacities of approximately 29 tons per day each. For each incinerator, the Utoy Creek RACT determination examined several technologies and either found that the NO_x control technologies were technically infeasible or were too expensive. The least expensive, feasible technology for each incinerator, low NO_x burners and flue gas recirculation, was determined to be \$36,000 per ton of NO_x removed. The result of this determination was that good combustion practices met the RACT requirements for Utoy Creek. Based on this more recent determination, the Commonwealth of Virginia recertifies the Noman M. Cole Pollution Control Plant's current RACT determination of proper operation and good combustion practices.

3.1. NO_x SIP Call Facilities

Two facilities in the Northern Virginia 8-hour nonattainment area are subject to Part I of 9 VAC 5 Chapter 140 Regulation for Emissions Trading , NO_x Budget Trading Program, often called the “NO_x SIP Call.” These facilities will also be subject to the Clean Air Interstate Rule (CAIR) when Virginia finalizes that regulation. These facilities are:

70225: Dominion Virginia Power - Possum Point Power Station
70228: Mirant-Potomac River Power Plant

Based on the Phase 2 Final Implementation Rule, these facilities may be recertified as meeting the NO_x RACT requirement based on their compliance with the NO_x Budget Trading Program (9 VAC 5 Chapter 140) and on future requirements as set out in CAIR.

3.2. Internal Combustion Engines

In the Northern Virginia area, four facilities were subject to RACT control and used as a basis of their source specific RACT the ACT entitled “NO_x Emissions from Stationary Internal Combustion Engines,” document number EPA-453/R-93-032. These facilities have had their RACT determinations approved by EPA as listed in Table 3-1. These facilities are:

70151	Washington Gas Light Company
71958	Transco – Station 185
71961	Michigan Cogeneration Systems, Inc
71978	CNG Service Company

Each of the above source specific RACT determinations used the ACT document as a basis for the determination.

3.3. Municipal Waste Combustors - Sections 129 & 111(d)

Two facilities in Table 3-1 fall under the Municipal Waste Combustor requirements Article 54 of Part II of 9 VAC 5 Chapter 40, Emission Standards for Large Municipal Waste Combustors (Rule 4-54).

71985 Covanta – Alexandria
71920 Covanta – Fairfax

Rule 4-54 is not SIP approved. However, both these facilities have SIP approved source specific RACT determinations as noted in Table 3-1. These RACT determinations reference the NO_x requirements 40 CFR 60 Subpart Cb (205 ppmvd NO_x at 7% O₂). In December 2005, a notice of

proposed changes to this regulation was published in the Federal Register (70 FR 75348). However, this proposal is not suggesting changes to the NO_x limitation for mass burn waterwall combustors, the applicable technology used at 71985 and 71920. Therefore, no documentation currently exists suggesting that RACT may be more stringent than the NO_x limitation already required for these units. Based on this information, the Commonwealth of Virginia believes recertification of these source specific NO_x RACTs is appropriate for the 8-hour ozone standard.

4. Area Source VOC Regulations

In addition to the CTG and source specific RACTs listed above, the Northern Virginia nonattainment area implemented limitations on VOC emissions from various area sources, including consumer products, portable fuel containers, and architectural and industrial maintenance coatings. These regulations are listed in Table 4-1 below. These regulations were implemented to generate further VOC reductions within the 1-hour ozone nonattainment area with the goal of attainment of the 1-hour ozone standard. In pursuit of attaining the 8-hour ozone standard, the Northern Virginia nonattainment area is currently considering further restrictions on emissions from portable fuel containers and on emissions from consumer products. These area source reductions are considered beyond RACT measures. Work on further restrictions is ongoing.

Table 4-1 Area Source VOC Control Regulations			
Regulation	Title	Effective Date	EPA Approval Date
9 VAC 5 Chapter 40 Part II Article 42	Emission Standards for Portable Fuel Container Spillage in the Northern Virginia Volatile Organic Compound Emissions Control Area (Rule 4-42)	3/24/2004	6/8/04 69 FR 31893
9 VAC 5 Chapter 40 Part II Article 49	Emission Standards for Architectural and Industrial Maintenance Coatings in the Northern Virginia Volatile Organic Compound Emissions Control Area (Rule 4-49)	3/24/2004	6/5/05 70 FR 24970
9 VAC 5 Chapter 40 Part II Article 50	Emission Standards for Consumer Products in the Northern Virginia Volatile Organic Compound Emissions Control Area (Rule 4-50).	3/9/2005	1/31/06 71 FR 5035

5. Small NO_x Source Model Rules

In 2001, the Ozone Transport Commission (OTC) developed a model rule for additional NO_x control measures directed at controlling boilers with a size of at least 5 million Btu/hr, combustion turbines with a size of at least 25 million Btu/hr, and reciprocating engines of at least 200 horsepower. The model rule was developed as part of a regional effort to attain and maintain the 1-hour ozone standard and address emission reduction shortfalls within states' plans to attain the 1-hour ozone standard.

Virginia did not consider this model rule to be RACT for these units for a number of reasons. In general, units such as these do not have, by themselves, the potential to emit of at least 100 tons per year of NO_x. When located at facilities that have a potential to emit of at least 100 tons per year of NO_x, these units are subjected to source specific NO_x RACT determinations. When the NoVA area was classified as a severe ozone nonattainment area for the 1-hour standard, these RACT determinations were also performed for facilities with a potential to emit of at least 25 tons per year of NO_x.

Since RACT determinations for these units are already implemented at facilities with major stationary source levels of potential NO_x emissions, adoption of this model rule was not necessary to satisfy the Clean Air Act Amendments' RACT requirements.

6. Consideration of information or questions received via public comment.

The public participation requirements of 40 CFR 51.102 and Section 2.1 of Appendix V of 40 CFR Part 51 are provided in Enclosures 2 and 3.

7. Reference Listing

- Clean Air Act Section 182(b)(3)
- Design Criteria for Stage I Vapor Control Systems-Gasoline Service Stations, November 1975
- Control of Volatile Organic Emissions from Existing Stationary Sources, Volume II: Surface Coating of Cans, Coils, Paper, Fabrics, Automobiles, and Light-Duty Trucks, May 1977 EPA-450/2-77-008
- Control of Volatile Organic Emissions from Solvent Metal Cleaning, November 1977 EPA-450/2-77-022
- Control of Refinery Vacuum Producing Systems, Wastewater Separators, and Process Unit Turnarounds, October 1977 EPA-450/2-77-025
- Control of Hydrocarbons from Tank Truck Gasoline Loading Terminals, December 1977 EPA-450/2-77-026
- Control of Volatile Organic Emissions from Existing Stationary Sources, Volume III: Surface Coating of Metal Furniture, December 1977 EPA-450/2-77-032
- Control of Volatile Organic Emissions from Existing Stationary Sources, Volume IV: Surface Coating for Insulation of Magnet Wire, December 1977 EPA-450/2-77-033
- Control of Volatile Organic Emissions from Existing Stationary Sources, Volume V: Surface Coating of Large Appliances, December 1977 EPA-450/2-77-034
- Control of Volatile Organic Emissions from Bulk Gasoline Plants, December 1977 EPA-450/2-77-035
- Control of Volatile Organic Emissions from Storage of Petroleum Liquids in Fixed Roof Tanks, December 1977 EPA-450/2-77-036
- Control of Volatile Organic Compounds from Use of Cutback Asphalt, December 1977 EPA-450/2-77-037
- Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VI: Surface Coating of Miscellaneous Metal Parts and Products, June 1978 EPA-450/2-78-015
- Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VII: Factory Surface Coating of Flat Wood Paneling, June 1978 EPA-450/2-78-032
- Control of Volatile Organic Compound Leaks from Petroleum Refinery Equipment, June 1978 EPA-450/2-78-036
- Control of Volatile Organic Emissions from Manufacture of Synthesized Pharmaceutical Products, December 1978 EPA-450/2-78-029
- Control of Volatile Organic Emissions from Manufacture of Pneumatic Rubber Tires, December 1978 EPA-450/2-78-030

- Control of Volatile Organic Emissions from Existing Stationary Sources, Volume VII: Graphic Arts – Rotogravure and Flexography, December 1978 EPA-450/2-78-033
- Control of Volatile Organic Emissions from Petroleum Liquid Storage in External Floating Roof Tanks, December 1978 EPA-450/2-78-047
- Control of Volatile Organic Compound Leaks from Gasoline Tank Trucks and Vapor Collection Systems, December 1978 EPA-450/2-78-051
- Control of Volatile Organic Compound Emissions from Large Petroleum Dry Cleaners, September 1982 EPA-450/3-82-009
- Control of Volatile Organic Compound Emissions from Manufacture of High Density Polyethylene, Polypropylene, and Polystyrene Resins, November 1983 EPA-450/3-83-008
- Control of Volatile Organic Compound Equipment Leaks from Natural Gas/Gasoline Processing Plants December 1983 EPA-450/2-83-007
- Control of Volatile Organic Compound Fugitive Emissions from Synthetic Organic Chemical Polymer and Resin Manufacturing Equipment march 1984 EPA-450/3-83-006
- Control of Volatile Organic Compound Emissions from Air Oxidation Processes in Synthetic Organic Chemical Manufacturing Industry, December 1984 EPA-450/3-84-015
- SOCM Distillation and Reactor Processes CTG, August 1993 EPA 450/4-91-031
- Wood Furniture CTG April 1996 – EPA-453/R-96-007
- Shipbuilding/repair ACT/CTG 61 FR 44050 (CTG) August 27, 1996; ACT April 1994 EPA 453/R-94-031
- Aerospace CTG December 1997 EPA 453/R-97-004 CTG
- Control Techniques for Organic Emissions from Plywood Veneer Dryers, May 1983, ACT EPA 450/3-83-012
- Ethylene Oxide Sterilization ACT, March 1989 EPA 450/3-89-007
- ACT Document – Halogenated Solvent Cleaners August 1989 EPA 450/3-89-030
- ACT Document – Organic Waste Process Vents, December 1990 EPA 450/3-91-007
- ACT Polystyrene Foam Manufacturing, 1990 EPA 450/3-90-020
- Bakery Ovens ACT December 1992
- ACT Control Techniques for Volatile Organic Compound Emissions from Stationary Sources, December, 1992 EPA 453/R-92-018
- ACT Industrial Wastewater September 1992 & April 1994 EPA 453/D-93-056
- Control of VOC Emissions from the Application of Agricultural Pesticides, March 1993 EPA 450/R-92-011
- ACT: Volatile Organic Liquid Storage In Floating and Fix Roof Tanks, January 1994 EPA 453/R-94-001
- Control of Volatile Organic Compound Emissions from Batch Processes ACT February 1994 EPA 453/R-93-017 EPA 453/R-93-020

- ACT Document – Industrial Cleaning Solvents, February 1994 EPA 453/R-94-015
- ACT Business Machine Plastic Parts coating/Automobile Plastic Parts Coating, February 1994 EPA 453/R-94-017
- ACT Automobile Body refinishing April 1994
- ACT Ship building Coatings April 1994 EPA 453/R-94-032
- ACT Offset Lithography, June 1994 EPA 453/R-94-054
- NO_x Emissions from Nitric and Adipic Acid Manufacturing Plants December 1991 EPA 453/3-91-026
- NO_x Emissions from Stationary Combustion Turbines January 1993 EPA 453/R-93-007
- NO_x Emissions from Process Heaters, September 1993 EPA 453/R-93-034
- NO_x Emissions from Stationary Internal Combustion Engines, September 2000 EPA 453/R-93-032
- NO_x Emissions from Cement Manufacturing, March 1994 EPA 453/R-94-004
- NO_x Emissions from Industrial, Commercial & Institutional Boilers, March 1994 EPA 453/R-94-022
- NO_x Emissions from Glass Manufacturing, June 1994 EPA 453/R-94-037
- NO_x Emissions from Iron and Steel, September 1994 EPA 453/R-94-065
- Control of Volatile Organic Emissions from Perchloroethylene Dry Cleaning Systems, December 1978 EPA-450/2-78-050
- Reduction of Volatile Organic Compound Emissions from Application of Traffic Markings, August 1988 EPA-450/3-88-007
- Issues Relating to VOC regulation Cutpoints, Deficiencies, and Deviations – Clarification of Appendix D of November 24, 1987 FEDERAL REGISTER
- Commonwealth of Virginia's State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution Chapter 40 Existing Stationary Sources <http://www.deq.virginia.gov/air/regulations/air40.html>
- EPA's RACT/BACT/LAER Clearinghouse information: <http://cfpub.epa.gov/RBLC/htm/bl02.cfm?lang=off>